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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,701	12/26/2001	Koji Matsuo	KOJIM-443	7507

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EXAMINER	
HOFFMANN, JOHN M	

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,701	MATSUO ET AL.	
	Examiner	Art Unit	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2005*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 10-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 10-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/15/2005 has been entered.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

> the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara 6587262 (alone or in view of Hiraiwa 6189339) and in view of Kyoto 5053068 (and optionally in view of Moore WO 00/48046.

See how Fujiwara and Hiraiwa were previously applied. Official Notice was taken and not adequately traversed by applicant, therefore such is considered to be admitted prior art.

As to the deletion of "optionally" of claim 1, it is noted that Applicant did not indicate that such was a novel aspect of the invention in accordance with 37 CFR 1.111(c). Thus it deemed that applicant acknowledges that the use of fluorine compound gas would have been obvious. Nevertheless, col. 16, lines 57-67 of Fujiwara discloses the feeding of oxygen, hydrogen, further oxygen and an F compound. Either of the oxygens is a reactant gas that forms silica – when combined with silicon atoms.

Claims 1-2 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraiwa 6189339 in view of Fujiwara 6587262 and Kyoto 5053068 (and optionally in view of Moore WO 00/48046.

See how the references were previously applied. In addition, as Kyoto is additionally/alternatively applied as showing what was/is known. In other words: Examiner considers Kyoto as a type of elevated Official Notice: that it is well known to sinter in fluorine atmospheres for high addition rates and homogeneity. The third factor in the *Graham* **v.** *John Deere Co* analysis (above) is "Resolving the level of ordinary skill in the pertinent art." Kyoto is relied upon merely for its BACKGROUND section to resolve the level of ordinary skill in the pertinent art. Kyoto is evidence that the level includes the knowledge of the advantages of sintering in fluorine atmospheres.

Claims 1-2 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraiwa 6189339 in view of Fujiwara 6587262, Yamagata 5325230 and Kyoto 5053068 (and optionally in view of Moore WO 00/48046)

See how the references were previously applied and as applied above.

Response to Arguments

Applicant's arguments filed 12/15/2005 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus it does not matter that Fujiwara does not teach sintering in fluorine – see the Office action of 8/19/05 which explains why it would have been obvious in view of the combination of references. Nor does it matter that Moore does not teach all of the steps of the claims.

The arguments do address Kyoto, but only by alleging that the Office teaches away from Applicant's claimed invention, because Kyoto discloses that bubbles tend to form when heating to the claimed temperatures in a fluorine gas. This is not persuasive. Reviewing the entirety of Kyoto, it is clear that Kyoto teaches a trade-off – as per figure 3, the higher the pressure and/or the higher the temperature, the more fluorine is doped into the glass. As Applicant points out, Kyoto discloses that using the higher temperatures/pressures bubbles "tend" to form. However, as per col. 2, lines 45-49 of Kyoto, bubbles are not a prohibitive occurrence. Thus it clear that Kyoto discloses a tradeoff.

From MPEP 2145:

A prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness; however, "the nature of the teaching is highly relevant and must be weighed in substance. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) (Claims were directed to an epoxy resin based printed circuit

material. A prior art reference disclosed a polyester-imide resin based printed circuit material, and taught that although epoxy resin based materials have acceptable stability and some degree of flexibility, they are inferior to polyester-imide resin based materials. The court held the claims would have been obvious over the prior art because the reference taught epoxy resin based material was useful for applicant's purpose, applicant did not distinguish the claimed epoxy from the prior art epoxy, and applicant asserted no discovery beyond what was known to the art.)

The nature of the Kyoto teaching is such that Applicant's invention is not patentable merely because Kyoto discloses that higher temperatures are somewhat inferior

Moreover, the teaching of the Kyoto reference that the Office relies on is the BACKGROUND section – thus it relates to what was already known. Thus Kyoto is merely cited for evidence as to what was already known to all those in the art. Kyoto is not relied upon to show what was newly discovered by Kyoto. Applicant argues about "combining Kyoto with Fujiwara". The rejection need not combine what Kyoto newly discovers with Fujiwara – rather Kyoto is relied upon to evidence what the level of ordinary skill is.

Applicant also points out the Fujiwara points out the atmosphere in the first two steps, but not for the third. Applicant then questions why would Fujiwara then not mention fluorine in the third/sintering atmosphere. The issue as to why Fujiwara did not mention the third atmosphere (or a vacuum) does not appear to be the relevant issue – rather what would have been obvious for one of ordinary skill do when trying to implement the Fujiwara process. Or, if one of ordinary skill chose to do nothing, then

the fluorine gas would remain behind. Again, it does not matter that Fujiwara does not teach what to do, the question is whether it would have been obvious and/or inherent.

From MPEP 2144.01 Implicit Disclosure:

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

See also, *In re Fritch*, 972 F.2d 1260, 1264-65, 23 USPQ2d 1780, 1782-83 (Fed. Cir. 1992); *In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir 1985).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2-8-06

John Hoffmann
Primary Examiner
Art Unit 1731

JMH